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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/639,452	08/15/2000	Ronald Quan	196	2863

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PATENT DEPARTMENT  
MACROVISION CORPORATION  
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SANTA CLARA, CA 95050

EXAMINER
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VENT, JAMIE J

ART UNIT	PAPER NUMBER
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2616

DATE MAILED: 12/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/639,452	QUAN, RONALD
	Examiner	Art Unit
	Jamie Vent	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 15 August 2000.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) 22, 44-46 is/are allowed.
- 6) Claim(s) \_\_\_\_\_ is/are rejected.
- 7) Claim(s) 3,6-10,14,16-18,24,25,27-32,34-38,40,43,50,52-57,59-62,64 and 65 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>06/06/2002</u>	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 5, 11, 12, 13, 14, 15, 19, 20, 21, 23, 26, 33, 39, 41, 42, 47, 48, 49, 51, 58, and 63 are rejected under 35 U.S.C. 102(b) as being unpatentable by Wroblewski et al.

#### **[claim 1]**

In regard to Claim 1, Wroblewski et al discloses a method of enhancing the chroma distortion in a video signal which simultaneously is attenuated by a basic anti-copy protection signal, the video signal formed of video lines having horizontal blanking intervals including horizontal sync, front porch and back porch areas of respective normal levels, and a normal color burst signal (Figure 1a), comprising the steps of:

- lowering the level of a selected portion of the horizontal blanking interval to a value lower than said respective normal level (Figure 1a shows the lowering of the horizontal sync signal below the normal level of zero and described in Column 2 Lines 39-45);
- providing a sample signal in response to the lowered level in the selected portion (Figure 6a shows the sample signal through the “burst window” which is provided by the modifications done to the sync signal); and
- inserting a color burst signal of incorrect phase or frequency in a second portion of the horizontal blanking interval (Figure 3a – 3g shows the color burst signal

input inserted into the signal. The color burst being inserted are modified and incorrect as disclosed in Column 6 Lines 30-40 and further seen in Figures 1D and 2B); and

- wherein the second portion is spatially arranged in respect of the selected portion to cause the sample signal to sample the incorrect color burst signal rather than the normal color burst signal, to effect the enhancement of the chroma distortion (Figure 6a – 6c shows the sample signal containing the color burst at various placements which would effect the chroma distortion as described in Column 15 Lines 5-18).

**[claim 2]**

In regard to Claim 2, Wrobleksi et al discloses a method wherein the incorrect color burst signal is added to the horizontal sync signal and/or to the back porch area so as to cause the sampling of the incorrect color burst signal (Figure 3a-3e shows a color burst signals where incorrect, modified or modulated color burst are added to the back porch area to cause incorrect sampling as further disclosed in Column 6 Lines 49-67).

**[claim 4]**

In regard to Claim 4, Wrobleksi et al discloses a method wherein the incorrect color burst is added to the back porch area, and the selected portion which is lowered in level is a pseudo sync signal inserted in a portion of the back porch area prior to the incorrect color burst signal (Figure1a shows the lower level which contains pseudo sync signal as seen prior to the incorrect color burst signal that is inserted).

**[claim 5]**

In regard to Claim 5, Wrobleksi et al discloses a method wherein:

- the incorrect color burst signal is added to the horizontal sync signal, and the selected portion which is lowered in level is pseudo sync signal on the back porch area, following the incorrect color burst signal and immediately adjacent the beginning of the respective active video line (Figure 4b shows the selected portion lowered to the level of the sync signal and further described in Column 7 Lines 40-61); and
- the pseudo sync signal and the beginning of the active video line form a pseudo sync/automatic gain control (AGC) pulse pair (Column 14 Lines 25-27 describe the forming of the automatic gain control).

**[claim 11]**

In regard to Claim 11, Wrobleksi et al discloses a method including selecting the video lines of the video signal in which the chroma distortion enhancement is applied (Column 14 Lines 23-29 describes the line selector which instructs the selecting of video lines of the video signal with which enhancements have been applied).

**[claim 12]**

In regard to Claim 12, Wrobleksi et al discloses a method wherein the level is lowered from blanking level through a level of -30 IRE (Figure 1 shows blanking level to range from 100 to – 40. Furthermore, the 40 IRE burst amplitude color burst is presently lowered to the –30 IRE).

**[claim 13]**

In regard to Claim 13, Wrobleksi et al discloses a method wherein the level is dynamically varied through a range of a few IRE above blanking level to -30 IRE at a selected fixed or random frequency (Figure 1 shows the blanking level range from 100 to –40).

**[claim 15]**

In regard to Claim 15, Wrobleksi et al discloses a method of enhancing the chroma distortion, as discussed previously in claim 1, with the additional limitations:

- lowering the normal level of a portion of the horizontal blanking interval prior to the horizontal sync to cause an erroneous easily scan of the video line (Column 12 Lines 35-45 describes the lowering of the horizontal sync width and positon);
- adding a color burst of incorrect phase or frequency to the horizontal sync following the lowered portion (Column 12 Lines 6-19 describes the addition of the color burst with the incorrect phase to the horizontal sync signal); and
- sampling the incorrect color burst in response to the erroneous early scan so as to cause the enhanced chroma distortion.

**[claim 19]**

Claim 19 contains the limitations as stated in Claim 15 and is analyzed as previously discussed with respect to that claim.

**[claim 20]**

Claim 20 contains the limitations as stated in Claim 5 and is analyzed as previously discussed with respect to that claim.

**[claim 21]**

Claim 21 contains the limitations as stated in Claim 5 and is analyzed as previously discussed with respect to that claim.

**[claim 23]**

In regard to Claim 23, Wrobleksi et al discloses an apparatus for enhancing the chroma distortion in a video signal during reproduction of an illegal copy, wherein the video signal also is attenuated by a basic anti-copy protection signal, the video signal including video lines having

horizontal blanking intervals with normal levels of horizontal sync, front porch and back porch and a normal color burst, comprising:

- circuitry for lowering the level of a selected portion of the horizontal blanking interval to below the normal level (Figure 13 shows the circuit for the apparatus wherein Column 14 Lines 35-65 described the lowering of the selected portion of the horizontal blanking interval);
- a gate logic circuit for supplying a sample signal in response to the selected portion of lowered level (Figure 13a shows the burst gate which supplies the sample signal in response to the lowering level);
- subcarrier generator/combining circuits for supplying a color burst of incorrect phase or frequency in a further portion of the horizontal blanking interval (Figure 13b burst 42 supplies the color burst while the burst gate generator 16, burst inverter 34, burst envelop shaper 38, and burst separator combines together to make the color burst of incorrect phase); and
- wherein said further portion is positioned in respect of the selected portion to cause sampling by the sample signal of the incorrect color burst rather than of the normal color burst, so as to cause the enhancement of the chroma distortion (Figure 6a – 6c shows the sample signal produced by Figure 13b wherein the color burst at various placements which would effect the chroma distortion as described in Column 15 Lines 5-18.)

**[claim 26]**

In regard to Claim 26, Wrobleksi et al discloses an apparatus wherein the gate logic circuit is responsive to selected sync signals for also producing incorrect pre sync and post sync color

burst gate signals (Figure 13b shows the burst gate generator which selects incorrect post sync burst gate signals as described in Column 14 Lines 48-52).

**[claim 33]**

In regard to Claim 33, Wrobleksi et al discloses an apparatus including: a line location circuit responsive to the selected sync signals for supplying a line location signal which determines which video lines are to include the incorrect signals (Figure 13b the line counter 18 determines and supplies the location signals which are thereby determined to be incorrect signals).

**[claim 39]**

In regard to Claim 39, Wrobleksi et al discloses a method of modifying a video signal to provide a copy protection effect, with the additional limitation of generating a color burst signal of incorrect phase or frequency and adding the generated incorrect color burst signal to the horizontal blanking interval within the horizontal sync and/or after the normal color burst signal (Column 12 Lines 5-19 generating a color burst of incorrect phase and placed it within and or after the horizontal sync).

**[claim 41]**

Claim 41 contains the limitations as stated in Claim 39 and is analyzed as previously discussed with respect to that claim.

**[claim 42]**

Claim 42 contains the limitations as stated in Claim 39 and is analyzed as previously discussed with respect to that claim.

**[claim 47]**

Claim 47 contains the limitations as stated in Claim 15 and is analyzed as previously discussed with respect to that claim.

**[claim 48]**

In regard to Claim 48, Wrobleksi et al discloses a method wherein the incorrect color burst signal is located after the lowered back porch portion (Figure 5d shows the incorrect color burst signal located after the back porch area).

**[claim 49]**

In regard to Claim 49, Wrobleksi et al discloses a method wherein the incorrect color burst signal is located prior to the lowered back porch portion (Figure 5e wherein the color burst is located prior to the beginning of the lowered back porch portion).

**[claim 51]**

Claim 51 contains the limitations as stated in Claim 1 and is analyzed as previously discussed with respect to that claim.

**[claim 58]**

Claim 52 contains the limitations as stated in Claim 23 and is analyzed as previously discussed with respect to that claim.

**[claim 63]**

In regard to Claim 63, Wrobleksi et al discloses an apparatus including a timing circuit for generating a horizontal blanking interval of expanded duration which extends into a portion of active video (Column 12 Lines 35-45 describes the expanding of time of the horizontal blanking).

***Allowable Subject Matter***

**[Claims 3, 6, 7, 8, 9, 10, 14, 16, 17, 18, 24, 25, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 40, 43, 50, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 64 & 65]**

Claims 3, 6, 7, 8, 9, 10, 14, 16, 17, 18, 24, 25, 27, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 40, 43, 50, 52, 53, 54, 55, 56, 57, 59, 60, 61, 62, 64 & 65 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all

of the limitations of the base claim and any intervening claims. Examiner notes Ryan et al (US 5,844,988) discloses a modification and lowering in level of the front porch area as seen in Figure 15b and 15c; however, Ryan et al is not prior art under 35 USC 103 with the instant application.

**[Claim 22]**

Claim 22 is allowed.

The following is an examiner's statement of reasons for allowance:

Wrobleksi et al discloses a method for lowering the horizontal blanking interval and adding color bursts of incorrect phase or frequency (Column 12 Lines 5-45); however, fails to discloses the method of determining the average picture level which thereby adjusts the horizontal blanking level. Therefore, the prior art of record fails to teach, suggest, or disclose a method of "adjusting the lowered levels of the portion of the horizontal blanking level and/or of the pseudo horizontal sync in response to the average picture level".

**[claim 44, 45, & 46]**

Claims 44-46 are allowed.

The following is an examiner's statement of reasons for allowance:

Wrobleksi et al discloses a method for enhancing chroma distortion consisting of lowering the level of selection portion of the horizontal blanking interval to a value lower than the respective level (Figure 1b). It is further seen the enhancements are made through color bursts which are placed in the back porch area as seen in Figure 2a; however, fails to add modifications to the front porch area. Therefore, the prior art of record fails to teach, suggest, or disclose a method of "lowering the level of selected portion of the front porch area prior to the horizontal sync to a value lower than the respective normal level."

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ryan et al (US 5,844,988); and
- Ryan (US 6,188,832).

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamie Vent whose telephone number is 703-305-0378. The examiner can normally be reached on 7:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jamie Vent  
12/10/04



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